

### Claims

1. Brake system for a mobile work tool, wherein a first  
5 main non-muscular brake valve (10) for actuating a  
service brake and a second secondary non-muscular  
brake valve (16) for actuating this service brake are  
provided, each brake valve (10, 16) having at least a  
10 tank port (T), a reservoir port (SP, SP1, SP2) for a  
hydraulic accumulator, and a brake port (BR, BR1,  
BR2) leading to the service brake, characterized in  
that the tank port (T) of the main non-muscular brake  
valve (10) is connected with the brake port (BR) of  
the secondary non-muscular brake valve (16).
- 15 2. Brake system in accordance with Claim 1, wherein each  
non-muscular brake valve (10, 16) has at least one  
control piston (20, 22, 42) that connects the  
respective tank port (T) with the brake port (BR,  
20 BR1, BR2) and blocks the reservoir port (SP, SP1,  
SP2) when in its basic position, and which may be  
displaced through the intermediary of an operating  
element (28, 49) and a control spring assembly (30,  
46), so that the connection to the tank port (T) is  
25 blocked and the connection between the reservoir port  
(SP, SP1, SP2) and the brake port (BR, BR1, BR2) is  
opened, with a spring chamber (40) of the control  
spring assembly (30) of the main non-muscular brake  
valve (10) being connected with the tank port (T)  
30 thereof, and the operating element plunging into the  
spring chamber (40) being sealed by means of a high-  
pressure seal (62).
3. Brake system in accordance with Claim 1, wherein each  
35 non-muscular brake valve (10, 16) has at least one  
control piston (20, 22, 42) which connects the

5        respective tank port (T) with the brake port (BR,  
BR1, BR2) and blocks the reservoir port (SP, SP1,  
SP2) when in its basic position, and which may be  
displaced through the intermediary of an operating  
10        element (48, 49) and a control spring assembly (30,  
46), so that the connection towards the tank port (T)  
is blocked, and the connection between the reservoir  
port (SP, SP1, SP2) and the brake port (BR, BR1, BR2)  
is opened, wherein a spring chamber (40) of the  
15        control spring assembly (30) of the main non-muscular  
brake valve (10) is connected to atmosphere, and  
wherein a valve bore accommodating the control piston  
(20, 22) is sealed against the spring chamber (40)  
through a high-pressure seal (63).

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4. Brake system in accordance with any one of the  
preceding claims, wherein the main non-muscular brake  
valve (10) has the form of a dual circuit brake  
valve, and the secondary non-muscular brake valve  
20        (16) has the form of a single-circuit brake valve.

5. Brake system in accordance with any one of the  
preceding claims, wherein the main non-muscular brake  
valve (10) has the form of a road travel brake valve,  
25        and the secondary non-muscular brake valve (16) has  
the form of a work brake valve.

6. Brake system in accordance with any one of the  
preceding claims, wherein the operating element (28,  
30        49) is adapted to be operated through a pedal (12,  
18) or a proportional magnet (19), respectively.